Non-invasive Arrhythmia

PP-148

The Effect of Nesfatin-1 Levels on Paroxysmal Supraventricular Tachycardia

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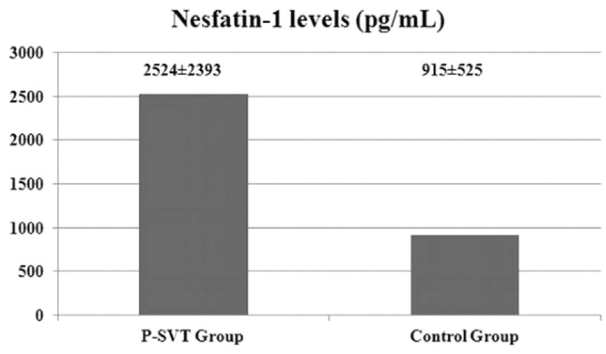
Background: Nesfatin-1 was originally identified as a neuropeptide of the hypothalamus, which is a key integration area of the brain, where numerous neuropeptides and transmitters are released to participate in the control of essential body functions. In the literature, there are no studies showing the relationship between the nesfatin-1 level and paroxysmal supraventricular tachycardia. We hypothesize that the circulating levels of nesfatin-1 may increase during supraventricular tachycardia, to engage the vagal stimulation to terminate by the inhibition of neuropeptide-Y, andmay activate oxytocin and the corticotropin-releasing hormone.
Materıals-Methods: This study includes 120 cases (80 patients and 40 controls). Patients with paroxysmal supraventricular tachycardia were compared with the control group with regard to sex, nesfatin-1 level, comorbid diseases, serum renal function values, and patients' vital findings.
Results: The baseline characteristrics of study subjects were summarized in Table 1. Figure 1 shows the difference of nesfatin-1 levels in two groups. nesfatin-1 levels were positively correlated highly with heart rate (r=0.634; P G 0.001). Figure 2 shows the ROC analysis of nesfatin-1 levels. The area under the receiver operating characteristic curve was 0.644 for the nesfatin-1 levels (P=0.0051). The sensitivity and specificity values of the nesfatin-1 levels were 41.2% and 95%, respectively (cutoff value 91743.7 pg/mL).
Conclusıon: At the end of this study, a statistically significant correlation was found between the serum nesfatin-1 level and supraventricular tachycardia. Although multifactorial causes may explain the relationship, we based our hypothesis on the relationship of the antagonistic effects of nesfatin-1 on the neuropeptide-Yand activated oxytocin.



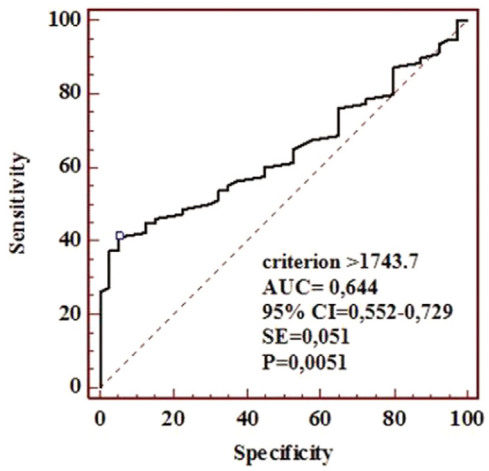


Table 1

	PSVT Group (n=80)	Control Group (n=40)	P value
Age (years)	42±8	40±7	0.1
Female (%)	62.5	75	0.1
History of (%)			
Diabetes Mellitus	16.3	5	0.06
Hypertension	22.5	7.5	0.03
Smoke	40	42.5	0.4
Creatinin (mg/dL)	0.8±0.2	0.8±0.1	0.4
Potassium	4.1±0.4	4.2±0.4	0.5
Calcium	9.1±0.6	9.1±0.6	0.4
Systolic BP (mmHg)	130± 19	123± 14	0.05
Diastolic BP (mmHg)	77±8	75±7	0.09
Heart rate (beat/min)	169±20	82±13	<0.001

The characteristic properties of study patients

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The Significance of Fragmented QRS Complex in Left Bundle Branch Block

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Background: The non-invasive tests used in the diagnosis of coronary artery disease (CAD) in patients with left bundle branch block are of limited use. The purpose of this study was to investigate the value of fragmented QRS complex in the prediction of CAD in patients with left bundle branch block.
Methods: In this study 60 patients with chest pain and LBBB on ECG were included. Prior to angiography, the presence of fragmented QRS was investigated on the electrocardiograms of all the patients. According to the results of coronary angiography, the patients were divided into two groups; patients with stenosis of 50% or higher in at least one coronary artery made up Group 1 (n=30) and those without stenosis constituted Group 2 (n=30).
Results: The study included 60 patients (27 males and 33 females) with a median age of 53.2+12.4. The average left ventricular ejection fraction was 51±11%. There was no significant difference between the groups in terms of ejection fraction, diabetes mellitus, hyperlipidemia, hypertension and smoking. In 19 (31.7%) patients, there were fQRS complexes; of these, 17 were in Group 1, and 2 in Group 2. The sensitivity, specifity, positive predictive value and negative predictive value of f-wQRS for CAD were 56.7%, 93.3%, 89.4%, 68.2, respectively.
Conclusıon: The presence of f-wQRS in patients with left bundle branch block predicts CAD with a high specificity. The procedure which is easy, inexpensive and noninvasive, can be used as a CAD predictor in patients with left bundle branch block.

PP-150

Heart Rate Turbulence in Patients with Stable Coronary Artery Disease and Its Relationship with The Severity of The Disease

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Purpose: Heart rate turbulence (HRT) shows the physiologic changes in the sinus cycle that follow a ventricular premature complex; abnormal HRT indicates impairments in cardiac autonomic function. There is no enough data in with stable coronary artery disease (CAD). We investigated HRT in patients with stable CAD.
Materıal-Methods: We studied 81(mean age: 60,8±10,8 years; 45 men) patients with documented CAD who have ventricular premature complexes on Holter monitoring, normal ejection fraction (EF) and no history of myocardial infarction and revascularization (CAD group). 82 (mean age: 53,1±9,6 years; 40 men) patients with ventricular premature complexes, but have normal EF and coronary arteries (control group). HRT parameters; turbulence onset (TO) and slope (TS) were analyzed on 24-hour Holter recordings. The findings of HRT were also compared with those of heart rate variability (HRV). Angiographic Gensini score were used to evaluate the severity of CAD.
Results: HRT parameters differed significantly between the 2 groups (TO: -0.61±1.51% vs -1.27±1.81%, p=0.012; TS: 4.81 ± 2.88 vs 6.75±3.87 ms/RR, p<0.0001 in patients with CAD and control group), also when we considered that turbulence onset ≥ 0% and turbulence slope ≤2.5 ms/ RR values were abnormal, there was significant difference between the two groups; TO abnormal: 34 patients (42%) vs19 patients (23,2%), p:0,010; TS abnormal: 17 patients (21%) vs 5 patients (6,1%), p: 0,005 in patients with CAD and control group. The relationship between HRT parameters and severity of coronary artery stenosis was evaluated by Gensini

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